

Title (en)

METHOD FOR PRODUCING DENTAL RESTORATION ELEMENTS

Title (de)

VERFAHREN ZUR HERSTELLUNG VON DENTALEN RESTAURATIONSELEMENTEN

Title (fr)

PROCÉDÉ DE RÉALISATION D'ÉLÉMENTS DE RESTAURATION DENTAIRE

Publication

**EP 1370190 B1 20071031 (FR)**

Application

**EP 02753586 A 20020321**

Priority

- FR 0200995 W 20020321
- FR 0104217 A 20010321

Abstract (en)

[origin: WO02074183A1] The invention relates to a method for producing high-geometric precision elements made from a neutral material. Using different types of prosthetic restoration, said elements are intended to fill the damage caused in teeth by dental caries or tissue alteration having other causes. The inventive elements are also intended to be used to produce high-precision dental crowns or other related dental devices. The method is characterised in that: a model (10), which is designed to fill the missing dental tissue that has been destroyed, is made either in vivo, updating and defining a new volume (2) that is bordered by healthy tissue and having a tapered wall, or in vitro, taking an impression in the mouth of a dental preparation using an impression compound, said impression then being cast in plaster, and updating and defining a new volume (2) using said positive plaster model; the measurements of said model (10) are then taken in 3D using a three-dimensional measuring apparatus (4, 15, 17) with light wavefront analysis and volume analysis which is carried out using shots, a projector (15) being positioned at an angle to a camera (17) and said projector (15) and camera (17) being mechanically and geometrically linked to a revolving platform (18) that is used to support the model by means of a frame (19) in order to obtain good triangulation; the data are processed electronically (12) to remodel the morsels of volume; the files are subsequently modified electronically to determine exactly the desired profile; and the final element to be implanted is machined with a digitally-controlled machine (6, 23, 24, 22).

IPC 8 full level

**A61C 5/77** (2017.01); **A61C 13/00** (2006.01); **A61C 13/083** (2006.01); **A61C 13/087** (2006.01); **A61K 6/027** (2006.01); **A61K 6/884** (2020.01); **A61C 9/00** (2006.01)

CPC (source: EP US)

**A61C 5/77** (2017.01 - US); **A61C 9/0053** (2013.01 - EP US); **A61C 9/0093** (2013.01 - EP US); **A61C 13/0003** (2013.01 - US); **A61C 13/0004** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

**WO 02074183 A1 20020926**; AT E376815 T1 20071115; CA 2441178 A1 20020926; CN 100336492 C 20070912; CN 1551748 A 20041201; DE 60223230 D1 20071213; DE 60223230 T2 20080814; EP 1370190 A1 20031217; EP 1370190 B1 20071031; ES 2295375 T3 20080416; FR 2822368 A1 20020927; HK 1071682 A1 20050729; JP 2004526498 A 20040902; US 2004089962 A1 20040513

DOCDB simple family (application)

**FR 0200995 W 20020321**; AT 02753586 T 20020321; CA 2441178 A 20020321; CN 02807007 A 20020321; DE 60223230 T 20020321; EP 02753586 A 20020321; ES 02753586 T 20020321; FR 0104217 A 20010321; HK 05104534 A 20050531; JP 2002572897 A 20020321; US 47216103 A 20030922